

REMARKS

INTRODUCTION

Claims 1-15, 20, and 23-27 were previously pending.

Claim 26 is cancelled herein.

Claims 28 and 29 are added herein.

Claims 1-15, 20, 23-25, and 27-29 are therefore pending and under consideration.

Claims 1-15, 20, 23-25, and 27 stand rejected.

Claims 1, 10, 12, 20, and 23 are amended herein.

No new matter has been added.

INTERVIEW SUMMARY

Applicant thanks the Examiner for the Interview of Nov. 19, 2007. During the Interview, Applicant and Examiner discussed the invention and the cited art. Applicant mentioned what are believed to be several distinctions over the combination of cited art. Examiner agreed that the combination did not use DNS to perform load balancing.

As noted by the Examiner in the Examiner's Interview Summary, "Applicant's representative and the Examiner agreed that He et al teaches a load balancing that fails to resolve the DNS request but only forward the IP address of the DNS server." Applicant agreed to amend the claims to clarify this aspect of the invention. The claims are so amended herein.

CLAIM AMENDMENTS

At the Interview it was agreed that the combined references do not teach balancing load using DNS (e.g., load balancing that resolves a DNS request). As Applicant explained, the cited references perform load balancing but only to determine which server to direct a client to. Consider the following portions of Zisapel and He.

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In Zisapel, a client does not send or require a DNS lookup request. Example requests are FTP and HTTP requests, where the IP address for the destination of the requests is already known (e.g., 100.100.1.0). See paragraph 0034. The operational concept of Zisapel is that requests, of whatever type, though sent to a specific IP address, are transparently redirected to another IP address by substituting a new IP address into the request (e.g., changing 100.100.1.0 to 200.100.1.0). See paragraph 0036. While Zisapel does use a polling mechanism to balance load (see paragraph 0040), the load balancing is not accomplished by resolving a hostname to a load-balanced IP address.

In He, load balancing is only a process of selecting a server to handle a client request. If a client needs to perform a DNS lookup, the load balancing system only tells the client which is the best (load-balanced) DNS server to send its DNS request to. DNS resolution occurs after the load balancing. He cannot possibly balance load using DNS (e.g. resolve a lookup request with a load-balanced IP address⁴) because it explicitly states that it can balance load for any type of service that is needed by a client; it does not use DNS as a balancing mechanism. As stated in He, after a balanced server is chosen "[t]he LB server then arranges for communications between [that] one of the servers and the client system", i.e. it arranges for the client to send its DNS request to the chosen server (column 3, lines 48-51).

He's system also cannot balance through DNS resolution because its system is expressly designed to work with any type of application-level request. In He, DNS is only an example and other types of requests (He mentions HTTP and FTP) would be serviced the same way. He, applied to a DNS request, balances load among multiple DNS servers that could service a client. If a client in He can send DNS requests to multiple DNS servers, the load balancing system of He would tell the client which DNS server is least loaded, and the client would then send its DNS request to that server.

See also columns 5 and 6 of He, in which the client sends a "domain name resolution request[]" (column 5, line 3) and the load balancing system "provides an IP number to the client system 43. Using the provided IP number, the client system directs its request [domain name

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resolution request] to that IP number" (column 6, lines 1-4). Thus, He is not resolving a DNS request with a balanced IP address, rather it is telling the client a balanced DNS server to which it should send its DNS request for resolution. After the load balancing process, the client still does not know the IP address for the needed domain name.

In view of the comments above and the Interview, it is respectfully submitted that the present claims are distinguishable from He combined with Zisapel.



CONCLUSION

The present application is in condition for allowance. A prompt action to such end is requested.

Should any fees be required in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-0463.

If the Examiner believes a telephone interview would be helpful to expedite prosecution, the Examiner is invited to contact Applicant's undersigned representative at the telephone number below.

Respectfully submitted,
Microsoft Corporation

Date: 17 Dec 2007

By: /James T. Strom/

James T. Strom, Reg. No.: 48,702
Attorney for Applicants
Direct telephone 425-939-0781

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December 17, 2007

Date

/Darcy Kobylarczyk/

Darcy Kobylarczyk

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